Cost-saving approaches for going pesticide-free



One of the main questions that arises when considering going pesticide-free is 'how much will it cost?'. While cost can be a significant issue, particularly for local councils which have seen their budgets slashed in recent years, it is not an insurmountable obstacle to making change. It is possible to reduce, or even end, pesticide use without costs going up. In fact, some councils have managed to save money!

Putting an exact figure on the cost of moving away from pesticides can be difficult. This is partly due to the fact that the level and type of weed control necessary will vary greatly depending on the location in question, and can even change from season-to-season based on the weather. However, despite the context-specific nature of going pesticide-free, PAN UK has identified some general approaches that can be applied by all urban land managers to help keep down costs.

This short briefing will describe some of our key learnings from nearly a decade of working with local councils, and provide advice and tips on cost-saving approaches and measures.

More information on alternative weed control methods is available in the PAN UK '*Alternatives to Herbicides: A Guide for the Amenity Sector*' which is available **here**.

Like-for-like comparisons of pesticides versus one alternative system don't give an accurate picture

A common mistake made by those seeking to go pesticide-free is to compare switching from pesticide use to one particular, alternative system (such as mechanical removal for example) and focus solely on those direct comparative costs. It's vital to remember that being pesticide-free tends to require an integrated system that involves a variety of approaches. Pesticides are unlikely to be replaced effectively with just one alternative. The good news is that some of these alternatives will lead to significant cost-savings. A good example of this is the way in which changing mowing regimes can impact cost. Leaving verges and other areas to grow is becoming more popular as a way of helping to increase and support biodiversity. It is also a key element of any pesticide-free plan. Reducing the number of times areas are mowed lowers labour costs and should therefore be factored into any cost assessment.

Take the long view – costs may go up initially but will come down over time

One of the key points about going pesticide-free is that it usually takes time. It is not possible to end the use of pesticides overnight and expect a plan to succeed, no matter how well thought out it is. PAN UK recommends its **three-year phase out plan** which has been successfully implemented by councils around the UK.

With that in mind, looking at the issue of cost over the short-term can often be alarming when factoring in items such as capital outlay on new machinery or employing extra staff for hand weeding. But experience from towns and cities that have gone pesticide-free shows that, over time, costs will come down while maintenance standards will be comparable to using pesticides.

Make sure to factor in <u>all</u> costs associated to using pesticides

A point that is frequently ignored is that pesticides cost money and applying them also comes with significant costs, ranging from hundreds to hundreds of thousands of pounds per year. In terms of assessing cost differences when considering going pesticide-free, it is important to gain a true understanding of all costs associated to using pesticides, many of which tend to be ignored.

Man at: www.pan-uk.org

Make sure you are factoring the following costs into calculations:

- Buying the pesticides themselves.
- Labour costs associated to paying council staff to apply pesticides.
- Any costs associated to contractors that run part, or all, of the weed control programme.
- Any operative using pesticides professionally must have a certificate of competence to do so legally.
- Personal Protective Equipment (PPE) for operators is vitally important to keep them safe and will need frequent replacement if it is to remain in a satisfactory condition for use.
- Unlike non-chemical alternatives, pesticides can legally only be applied in certain weather conditions. Regular and repeated changes to spraying schedules caused by rain and wind cost councils money. While it is hard to calculate exactly how much, this should be factored in.

There are also a range of other external costs that could be taken into consideration when assessing cost differences between using pesticides versus safer and more sustainable alternatives. They include the cost of treating water, dealing with the human health impacts of pesticides and loss of biodiversity and pollination services. While it is nearly impossible to calculate these figures with any accuracy, they undeniably exist and should therefore at least be mentioned in any pesticide reduction policy or strategy.

CASE STUDY

How the London Borough of Hackney has reduced pesticide use while slashing costs

Hackney Council in London provides a great example of how an initial assessment of pesticide use can play a vital role in reducing both costs and the amount of pesticide being applied.

In the first instance, they identified busy streets in the Borough where high footfall would naturally keep weeds under control and withdrew pesticide spraying. This alone reduced the area of pavements being treated by 100km across the Borough and led to an ongoing annual saving of approximately £10,000. Following on from this, they looked at how pesticides were actually being applied in the remaining areas. Switching from a 'blanket' application by operatives mounted on quad bikes to spot spraying weeds by knapsack spraying, led to an overall 50% reduction in the volume of pesticides applied – as well as a 50% reduction in the cost of purchasing pesticides.

Hackney Council has since gone further and withdrawn spraying completely from housing estates under its control as well as in parks and green spaces, resulting in a total overall reduction in the amount of pesticide being applied of 80%. They have also seen a valuable and important increase in plant diversity and abundance in the areas where spraying has ceased.

This is a particularly interesting example as Hackney has achieved a very significant reduction in the amount of pesticide it uses as well as saved a substantial sum of money simply by; stopping spraying in certain areas, changing the way pesticides are applied and understanding the nature

and level of weed control necessary to keep their obligations to the public in terms of accessibility, safety and the aesthetics of the area.

As Jon Burke, the Hackney Councillor who drove their pesticide-free initiative said:

"The cheapest alternative is no alternative".



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Explore whether money is being wasted by overusing pesticides

One key element in an initial assessment of cost is to understand properly how and where pesticides are currently being applied. Understanding this can

have an almost instant impact on the cost of your weed control operations. Often, more pesticides than are actually needed for effective weed control are being used, an unnecessary waste of council money. There are many possible reasons for overuse but a key one is

Delivering the recommended approach will secure the continued reduction in the use of herbicides by the Council of 76% against the 2019 baseline and will enable a budget saving of £44k to be made from the street cleaning service."

Kingston-Upon Thames Council, Place Committee report, 9th February 2023

poor contract specification with a 'spray-by-numbers' approach often used whereby a certain number of treatments on a particular amount of land per year is specified, regardless of actual need.

Prevention is better than cure

An important part of any pesticide-free strategy is to ensure that weeds don't get established in the first place. If there are no weeds, there is no need to get rid of them! Ensuring that areas are free of weed-friendly habitats in the first place will lead to a reduced need to deal with them in the growing season. There is a statutory requirement for councils to keep roads and paths free of detritus, which is often the perfect place for weeds to establish. Regular brushing and sweeping of kerbs, gutters and other areas where weeds could establish themselves will help keep weed numbers and costs down. Sweeping and brushing should be done well in advance of the growing season to ensure full effectiveness, ideally in February or March. Similarly, the use of hot foam systems or similar heat-based control systems can help to sterilise any seeds that go on to produce weeds later in the season. Again, this should be done well in advance of the growth phase for weeds. Over time, adopting such an approach and maintaining a high level of hygiene in areas prone to weeds will result in a reduced need for control - saving costs associated to both control methods and labour.

Practical actions that will reduce costs

In an ideal pesticide-free system a number of measures that will have a direct impact on costs should be included and also assessed when comparing costs: Reducing mowing regimes – As mentioned above, part of the pesticide-free approach and a key element in encouraging biodiversity is to change the way in which road verges, roundabouts and similar grassy-areas are maintained. These areas

> are often either mown or sprayed with pesticides to control vegetation. However, a growing number of councils are changing how this is done and are reducing the number of times areas are mown. One driving factor has been support for the 'No Mow May' campaign run by the organisation **Plantlife**.

Reducing the number of mows on verges and other areas, can bring significant cost savings.

- Reducing number of sprays Many contracts or operational policies for applying pesticides use a 'spray-by-numbers' approach whereby a certain number of sprays are required every year regardless of the actual need for them. This most frequently occurs when spraying is contracted out to a third-party. However, reducing the number of times areas are sprayed, for example from three down to two, tends not to result in any significant increase in weeds but will reduce the amount of pesticides used leading to a cost saving.
- Changing method of spraying The way in which pesticides are applied can also be changed in order to reduce usage and bring down costs. There are a number of examples of councils switching from blanket spraying of pesticides from quad bikes to spot spraying using operatives with knapsack sprayers. By simply switching the method of application, these councils have been able to save significant amounts of money (see case study on Hackney Council on page 2).
- Changing planting regimes Displays of annual bedding plants or other ornamental species have been a feature of town and village centres and parks and green spaces for decades. The plants used are often not particularly useful for pollinators and other wildlife, cost a lot of money and need regular maintenance and replacement. The cost of annual bedding plants, such as begonias, over large areas in towns can cost thousands of pounds.

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Changing to perennial, wildlife and pollinatorfriendly species can save a council thousands of pounds every year while still providing a beautiful spectacle for the public. Perennial plants and native species, in particular, are also less prone to competition from weeds and other pests, and so will assist in reducing the need for pesticides.

Developing wildflower areas – This is particularly relevant to parks and larger green spaces but can also be applied to other areas, such as pocket parks and small green spaces in housing estates as well as around tree pits. Tree pits are often sprayed to keep them free of weeds. However, as in the case of the London Borough of Lambeth, it is possible to stop spraying and to encourage wildflowers to develop around trees instead, thereby saving money.

Harness the power of residents via existing community or volunteering groups

Many councils have mobilised existing, local groups to help with hand weeding, thereby reducing costs. Lambeth Council's **Community Weeding Scheme** is a great example. It has not only brought benefits in terms of reducing pesticide use and costs, but also social cohesion. It is worth approaching any community groups in your area, but particularly those with a focus on nature and outdoor spaces such as Friends of Parks and allotment groups. The websites of the **National Federation of Parks and Green Spaces** and **Parks Community UK** are good places to check to see if such groups exist in your area.

Tackling the cost of purchasing new machinery for non-chemical weed control

While some councils have managed to go pesticidefree without buying new equipment, many have chosen to invest in machinery such as weed brushes and hot water or foam systems. Capital outlay for new machinery, particularly for councils under budgetary pressure, can be a major hurdle to establishing a pesticide-free strategy. However, there are ways to offset, reduce or recoup the initial outlay for equipment:

Some companies that make machinery for nonchemical weed control are now offering a hire scheme for their equipment which means no outlay for purchase or ongoing maintenance is required. There will of course still be the cost of hire but this would be much less than the purchase cost. Some of these companies also now sell pre-owned machinery, much of which has only been used in demonstrations but is sold for significantly less than brand new equivalents.

- It is possible to share the cost of purchasing new machinery with neighbouring towns or boroughs. There really is no need for every local authority to have its own weed control machinery. This is particularly true since the use of non-chemical weed control machinery is not weather dependent so, unlike pesticide application, there is no limitations to when they can be used. Cost sharing between neighbouring councils is an innovative way to keep capital outlay to a minimum.
- In another example of cost saving, Glastonbury Town Council purchased a hot foam machine as part of their pesticide-free approach. At the time, this was a significant outlay for a small town to make. To offset and recoup this cost, their approach has been to hire out the machinery to neighbouring area at a reasonable fee. This is certainly an approach that could be adopted by other councils, especially where there are smaller towns or villages in the vicinity who also wish to go pesticide-free.
- Another early adopter of the pesticide-free approach, Lewes District Council, purchased the equipment they needed in partnership with their contractor, at no additional cost to local tax payers. While the council saved significant money, the contractor was able to advertise that they now offered pesticide-free weed control and use the machine with other clients on the more than two hundred days per year when it was not required for council work.
- It is worth noting that some of the machines designed for non-chemical weed control are also able to provide other useful services, such as cleaning graffiti and removing chewing gum. Make sure to factor in the associated cost savings into your overall calculations.

It is important to note that the pesticide-free approach is a fairly new concept, certainly in the UK. Over the last five to ten years the cost of non-chemical weed control machinery has fallen and this trend is set to continue as demand increases. Similar to other sustainable technologies, such as electric cars, rising demand is driving both innovation and reduced costs. If you already have a new machine, or are considering purchasing one for your council, you are in the pesticide-free vanguard that will help make it easier and more affordable for those that follow your lead.